

CASE 4008: Application of PAUL  
DECLEVA FOR A DUAL COMPLETION  
& SALT WATER DISPOSAL, LEA COUNTY.

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Case Number

4008

Application  
Transcripts.

Small Exhibits

ETC.

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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
December 27, 1968  
EXAMINER HEARING

-----  
IN THE MATTER OF: )  
)  
)

Application of Paul DeCleva )  
for a dual completion and )  
salt water disposal, Lea )  
County, New Mexico. )  
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Case No. 4008

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Case 4008.

MR. HATCH: Case 4008, Application of Paul DeCleva for a dual completion and salt water disposal, Lea County, New Mexico.

MR. COOTER: May the record reflect Paul Cooter of Atwood & Malone, Roswell, appearing for the applicant. We have one witness, William G. McCoy, who was sworn in a prior case.

(Whereupon, Applicant's Exhibits  
Numbers 1, 2, 3, inclusive,  
were marked for identification.)

WILLIAM G. MCCOY

called as a witness by the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. COOTER:

Q Would you state your name for the record?

A William G. McCoy.

Q Mr. McCoy, what does the applicant, Mr. DeCleva, seek by his application in this case?

A Mr. DeCleva seeks to dispose of produced salt water from his N . 1 Shell State, located in the northwest quarter of the northeast quarter of Section 19, Township 11 South, Range 34 East. His lease covers the northeast quarter of Section 19. This will be the only well from which water will be disposed of.

Q Now, I direct your attention to what has been marked as Exhibit Number 1. Are the wells, producing wells in the area all shown on that exhibit?

A Yes, they are.

Q Production is from what formation?

A Bough C Formation of the Pennsylvanian Age. There is one abandoned Wolfcamp producer located in the southeast quarter of the southeast quarter, Section 7, Township 11 South, Range 34 East.

Q Have the offset operators again been notified of Mr. DeCleva's operation?

A They have.

Q Has Mr. DeCleva filed his Request for Allowables, C-104?

A He has.

Q Has Mr. DeCleva filed his Well Completion Report, Form C-105?

A He has.

Q Should this application be granted, into what formation would the salt water be disposed of? Before identifying and going into the casing and cementing program on this well, would you first state the zones or the depths into which the salt water would be disposed of?

A Salt water would be disposed between the intervals of 3774 feet and 7240 feet.

Q Directing your attention to Exhibit 2, will you please relate the casing and cementing completion on this well?

A Beginning at the surface, twelve and three-quarter-inch casing was run to 317 feet, cemented with 400 sacks of cement, which was circulated to the surface, thereby protecting the Shell water bearing horizons.

Eight and five-eighths-inch casing was run to a depth of 3774 feet, cemented with 350 sacks of cement, with the estimated top at 2000 feet.

The production casing was run with four and a half-inch casing run to a total depth of 9970 feet, cemented with 575 sacks of cement, with the estimated top of the cement at 7240 feet.

Q Between what casings would the salt water be disposed of?

A The proposed injection water will be disposed of in the annular space between the base of the eight and five-eighths-inch casing at 3774 feet, and the top of the cement lined, four and a half-inch casing at 7240 feet.

Q Is this casing new casing?

A It is.

Q What is the collapsed pressure at the surface?

A It is estimated in our opinion that the surface pressure of the collapse of the casing in the projected disposal zone to be 1,750 pounds.

Q Do you have an opinion as to which formation or formations would take the salt water?

A It is my opinion that the Lower San Andres Formation will take the disposed salt water.

Q What is the basis for your opinion?

A The Lower San Andres or Slaughter Formation is the first porous formation encountered below the base of the eight and five-eighths casing.

Q Referring back to Exhibit 1, are any of the wells, producing wells shown on Exhibit 1 producing from these formations, or within these zones?

A There are no wells producing from this interval.

Q Do you know whether salt water is being disposed of in this area?

A In July of 1967, we had a similar application wherein I presented at the time for Southern Minerals Corporation, to inject a similar system, to install a similar system, the No. 1 State D Lease, which is located in the southwest quarter of the northwest quarter of Section 8, Township 11 South, Range 34 East.

I have the records in the Commission office, the C-120, filed by--C-120-A, I believe, filed by Southern Minerals Corporation for the month of October, 1968. Their monthly disposal was 2,700 barrels of water. Their cumulative disposed water was 20,840 barrels. Their average injection pressure has been 500 pounds. And I believe that this is the estimate we had in the case at the time that we felt it would go in under 500 pounds pressure.

Q Was that well of Southern Minerals a dual completion similar to what is proposed in this instance?

A It is an exact duplicate of the same system.

Q Should this application be granted by the Oil Conservation Commission, what would be the amount of salt water to be disposed of or the estimated amount of salt water to be disposed of in the well?

A We estimate currently approximately 320 barrels per day.

MR. COOTER: We would move to amend our application in this regard. We mentioned 200 barrels.

MR. NUTTER: The application is so amended.

Q Now, I will direct your attention to what has been marked as Exhibit 3 in this case, and ask you to identify it?

A It is an acoustical velocity log on the Paul DeCleva No. 1 Shell State.



Q What information have you shown thereon?

A I have indicated the base of the eight and five-eighths casing at 3774 feet; top of the San Andres Formation at 3980 feet; top of the Glorieta Formation at 5420 feet; top of the Tubb Formation at 6870 feet; top of the four and a half cement estimated at 7240 feet; top of the Bough C Formation, the producing horizon in the captioned well at 9900 feet.

Q Has an analysis been made of the salt water to be disposed of?

A It has, and we were unable to get a written copy of the analysis. But I have it by phone on December 26, and I would like to read it for the record.

Q Before you do that, by whom was that analysis made?

A The analysis was made by Rusco Chemical Company.

Q All right, sir.

A The following is the water analysis on the Paul DeCleva No. 1 Shell State.

PH, 5.6.

H<sub>2</sub>S, negative.

CO<sub>2</sub>, positive.

Specific gravity, 1.102.

The phenol alkalinity, zero.

The MP alkalinity, 190.

Bicarbonates, 231.

Chlorides, 87,500.

Sulphates, 2,400.

Hardness, 8,100.

Calcium, 6,800.

Magnesium, 1,300.

Iron, 62.

Q Once again, should this application be granted, would the water be treated prior to its disposal?

A It would. We would set up a continuous treatment, and Rusco's recommendation is for corrosion one quart of their W-282 per 240 barrels. And they do not feel that there is scale reactors in the water. However, again in our opinion, if the first coupon test indicates scale, we will treat for scale.

Q Does the applicant propose to run a coupon survey periodically?

A We do.

MR. COOTER: We would offer Applicant's Exhibits 1 through 3.

MR. NUTTER: Paul DeCleva's Exhibits 1 through 3 will be admitted in evidence.

(Whereupon, Applicant's Exhibits Numbers 1, 2, 3, inclusive, were admitted in evidence.)

MR. COOTER: That is all.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. McCoy, on this particular well, the top of the cement on the long string is estimated. What do you use there to estimate your top of the cement?

A We used Halliburton's analysis of their cementing tables, and correlated it with, I believe, a well that was run by Mr. Stolts in the area where he had run a cement test and checked. Evidently, they have a correctional factor for the tables to actual hole conditions within the immediate area.

Q So this is not just taking the volume between the hole and the casing, and using some fillup factor? This is based on actual correlation in the area, then.

A That is true. This is done by Buddy Marshall of Halliburton in Lovington.

Q Now, what do you mean that this collapsed pressure of this four and a half-inch casing is 1750PSI at the surface?

A Well, we have taken what we feel--I believe on the diagrammatic sketch we have shown the API collapsed factor, with no safety factor, of 5,930 pounds, and by putting a safety factor in there--now, this wasn't done by myself, this was done by Mr. DeCleva's engineer. He puts a safety factor on that, and

then fills the annular space with salt water, calculates that weight, and then subtracting the two will give us a surface pressure.

Q But you can go to 1750 pounds pressure at the surface in the hydrostatic head, including the safety factor?

A Right, and still stay below.

Q It will be within that collapsed pressure of the casing?

A Yes.

Q There are no wells in this area producing from the San Andres, Glorieta, or Tubb, is that correct?

A No, sir, there is one other disposal well, I believe in the area by General American over in 16 southwest, southwest, but that currently is abandoned. I believe they injected 1,396,083 barrels.

Q But there is no production of oil?

A No.

MR. NUTTER: Any further questions of Mr. McCoy? You may be excused. Do you have anything further, Mr. Cooter?

MR. COOTER: Nothing further.

MR. NUTTER: Does anyone have anything they wish to offer in Case 4008? We will take the case under advisement.

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
WILLIAM G. McCOY	
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<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's Exhibits Numbers 1 through 3	2	8

STATE OF NEW MEXICO     )  
                                   )     ss.  
 COUNTY OF BERNALILLO    )

I, SAMUEL MORTELETTE, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

*Samuel Mortelette*  
 \_\_\_\_\_  
 COURT REPORTER

I do hereby certify that the foregoing is  
 a true and correct copy of the transcript as in  
 the transcript of the hearing of Case No. 4008  
 held on the 12/27, 1968.

*Samuel Mortelette*  
 \_\_\_\_\_  
 New Mexico Oil Conservation Commission

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN

State of New Mexico  
**Oil Conservation Commission**



LAND COMMISSIONER  
GUYTON B. HAYS  
MEMBER

STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

P. O. BOX 2088  
SANTA FE

December 31, 1968

Mr. Paul Cooter  
Atwood & Malone  
Attorneys at Law  
Post Office Box 700  
Roswell, New Mexico 88201

Re: Case No. 4008  
Order No. R-3650  
Applicant:  
Paul DeCleva

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

*A. L. Porter, Jr.*  
A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC       

Aztec OCC       

Other                      State Engineer Office

**BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:**

**CASE No. 4008  
Order No. R-3650**

**APPLICATION OF PAUL DeCLEVA  
FOR A DUAL COMPLETION AND SALT  
WATER DISPOSAL, LEA COUNTY, NEW  
MEXICO.**

**ORDER OF THE COMMISSION**

**BY THE COMMISSION:**

This cause came on for hearing at 9 a.m. on December 27, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 31st day of December, 1968, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS:**

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Paul DeCleva, seeks authority to complete his Shell State Well No. 1, located in the NW/4 NE/4 of Section 19, Township 11 South, Range 34 East, NMPM, Lea County, New Mexico, as a dual completion to produce oil from the Inbe Permo-Pennsylvanian Pool through 2 3/8-inch tubing and to dispose of produced salt water down the annulus between the 8 5/8-inch intermediate casing string and the 4 1/2-inch production casing string into the San Andres, Glorieta, and Tubb formations, with injection into the open-hole interval between the 8 5/8-inch casing shoe at 3774 feet and the top of the cement at 7240 feet.

(3) That the produced salt water should be continuously treated prior to injection to prevent casing corrosion and coupon corrosion tests should be conducted continuously on said well and the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission.



-2-

CASE No. 4008

Order No. R-3650

(4) That approval of the dual completion and salt water disposal as set out above will prevent the drilling of unnecessary wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Paul DeCleva, is hereby authorized to complete his Shell State Well No. 1, located in the NW/4 NE/4 of Section 19, Township 11 South, Range 34 East, NMPM, Lea County, New Mexico, as a dual completion to produce oil from the Inbe Perno-Pennsylvanian Pool through 2 3/8-inch tubing and to dispose of produced salt water down the annulus between the 8 5/8-inch intermediate casing string and the 4 1/2-inch production casing string into the San Andres, Glorieta, and Tubb formations, with injection into the open-hole interval between the 8 5/8-inch casing shoe at 3774 feet and the top of the cement at 7240 feet;

PROVIDED HOWEVER, that the produced salt water shall be continuously treated prior to injection to prevent casing corrosion; that coupon corrosion tests shall be conducted continuously on said well and the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission;

PROVIDED FURTHER, that the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

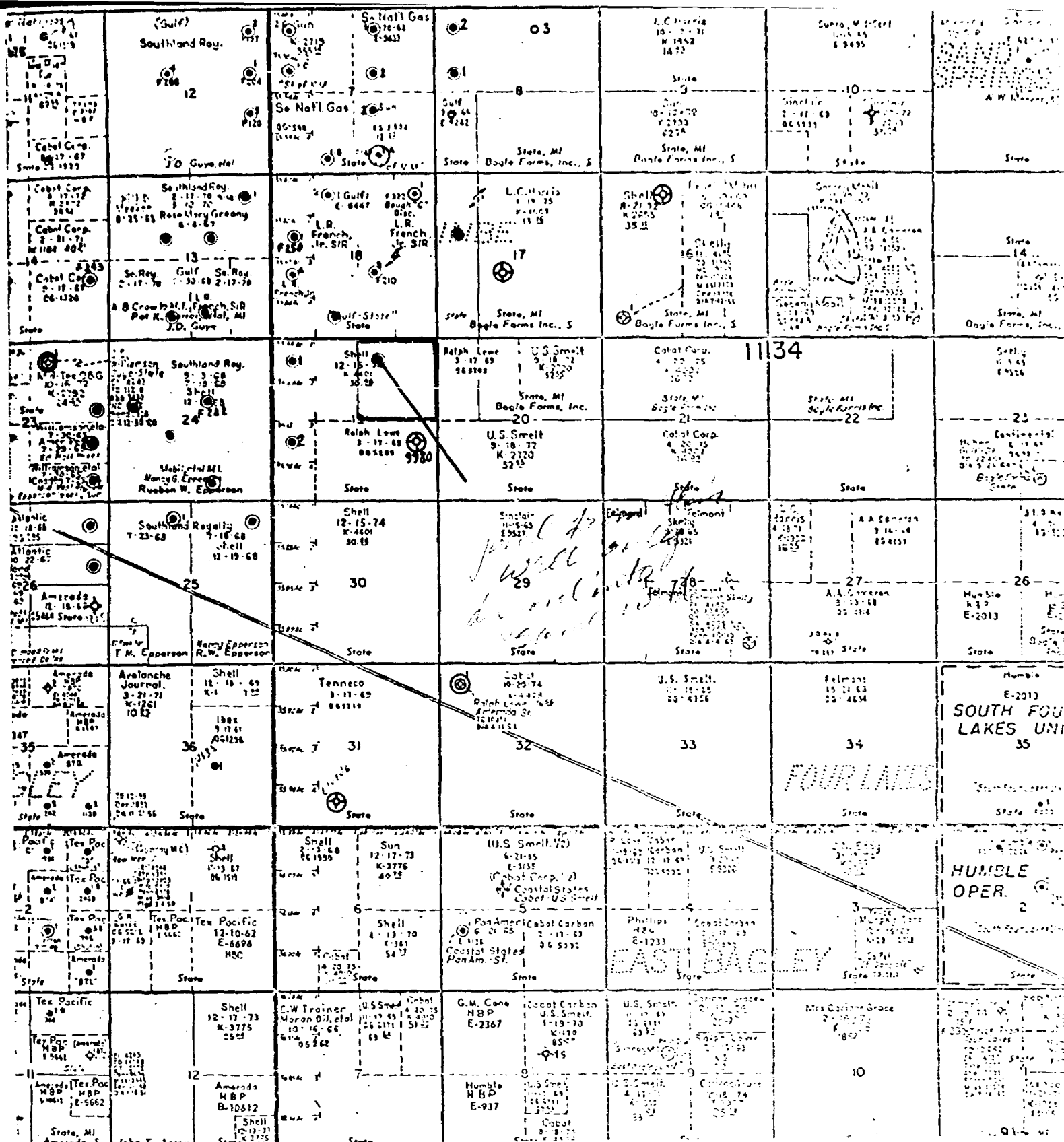
STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

DAVID E. CARGO, Chairman

GUSTON B. HAYS, Member

A. L. PORTER, Jr., Member & Secretary

esr/



# PAUL DECLEVA SHELL-STATE LEASE

CASE NO. 4008

- ☐ BOUGH "C" PRODUCER
- ☐ BOUGH "C" DRY HOLE
- ☐ WOLFCAMP-ABANDONED

BEFORE EXAMINATION

OIL CONSERVATION

EXHIBIT NO. 1

CASE NO. 4008

# DIAGRAMMATIC SKETCH

PAUL DeCLEVA NO.1 SHELL STATE

WATER INJECTION

GROUND LEVEL

Top of the 8-5/8" cement  
Estimated @ 2000'

12-3/4"-X42-34# @ 317'  
Cemented with 400 sx. Reg.+2% CaCl  
Cement circulated to surface.

Disposal Zone  
3774' - 7240'

8-5/8"-J-55-24 @ 324' @ 3774'  
Cemented with 150 sx.Incor-Poz  
200 sx.Reg.+8% salt/Sx.  
2% gel + 2% CaCl.

Casing over Disposal Zone  
4-1/2"-N-80-11.6#  
API Collapse Resistance  
S930#-No safety Factor

Top cement @ 7240' Estimated

2-3/8"-J-55-4.7# Tubing

Baker Model "R" Packer @ 9801

Perforations 9905,9910,9914,9919

Cemented with 325 sx.Incor-Poz+2% gel/  
250 sx.Incor-Neat +  
2% gel and 8% salt/sx.

4-1/2"-N-80 Casing Top 9665.60 11.6#  
Total Depth 9970' Btm 308.27 13.5#

BEFORE EXAMINER REVIEW

OIL CONSERVATION

EXAMINER NO.


CASE NO.

4000

PLEASE NOTE:

Electric logs were ordered but  
have not been received to date. <sup>or</sup>  
They will be mailed when received.

W.G. McCoy

**MILLER-HOWARD**  
 **Office Supply Co.**

PHONE 622-8771  
206 West 4th St.  
ROSWELL, NEW MEX.

TO \_\_\_\_\_  
Date \_\_\_\_\_ Time \_\_\_\_\_

**WHILE YOU WERE OUT**

Mr. \_\_\_\_\_

of \_\_\_\_\_

Phone \_\_\_\_\_

Telephoned ( ) Please call him ( )

Called to see you ( ) Will call again ( )

MESSAGE: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

BY \_\_\_\_\_

SUPPLIES • FURNITURE • MACHINES • PRINTING

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

APPLICATION OF PAUL DeCLEVA )  
FOR SALT WATER DISPOSAL AND )  
A DUAL COMPLETION OF HIS SHELL )  
STATE LEASE WELL NO. 1 LOCATED )  
IN THE NW $\frac{1}{4}$ NE $\frac{1}{4}$  SECTION 19, TOWN- )  
SHIP 11 SOUTH, RANGE 34 EAST, )  
N. M. P. M., LEA COUNTY, NEW MEXICO. )

No. 4008

A P P L I C A T I O N

COMES NOW Paul DeCleva and respectfully presents this Application to the Oil Conservation Commission of the State of New Mexico for an Order permitting him to complete his Shell State Lease Well No. 1 located in the NW $\frac{1}{4}$ NE $\frac{1}{4}$  Section 19, Township 11 South, Range 34 East, N. M. P. M., Lea County, New Mexico, as a dual completion to produce oil from the Bough "C" formation in the Inbe-Pennsylvanian Pool through the 4 $\frac{1}{2}$  inch production casing string with injection of the power oil through the 2  $\frac{3}{8}$  inch tubing and to dispose of produced salt water down the annulus between the 8  $\frac{5}{8}$  inch intermediate casing string and the 4 $\frac{1}{2}$  inch production casing string into the San Andres, Glorietta and other formations, with injection into the open hole interval between the 8  $\frac{5}{8}$  inch casing shoe at 3,774 feet and the top of the cement at 7,240 feet. In support thereof, Applicant states:

1. Attached hereto marked Exhibit "A" is a plat showing the location of Applicant's well hereinabove described and the location of all other wells within a radius of two miles therefrom. This plat also indicates the lessees of record within this two mile radius. All such wells, excluding

Applicant's well, are now producing from the Bough "C" formation in the Inbe-Pennsylvanian Pool, and Applicant's well will be so producing upon the entry of an Order by this Commission as herein requested.

2. Attached hereto marked Exhibit "B" is the log of Applicant's well hereinabove described.

3. Attached hereto marked Exhibit "C" is a diagrammatic sketch of Applicant's well hereinabove described showing all casing strings, including diameters and setting depths, quantity used and tops of cement, perforated or open hole intervals, tubing strings, including diameters and setting depths, and the type and location of packers, if any.

4. The salt water to be disposed of would be that produced from Applicant's well hereinabove described, the anticipated volume of which would be approximately <sup>320</sup>~~200~~ barrels per day. The produced salt water would be continuously treated prior to injection to prevent casing corrosion.

WHEREFORE, Applicant requests that this Application be set for examiner hearing and that after such hearing this Commission enter its Order authorizing the dual completion and salt water disposal as herein requested.

Respectfully submitted,

PAUL DeCLEVA

By William F. McCoy

ATWOOD & MALONE

By [Signature]  
His Attorneys

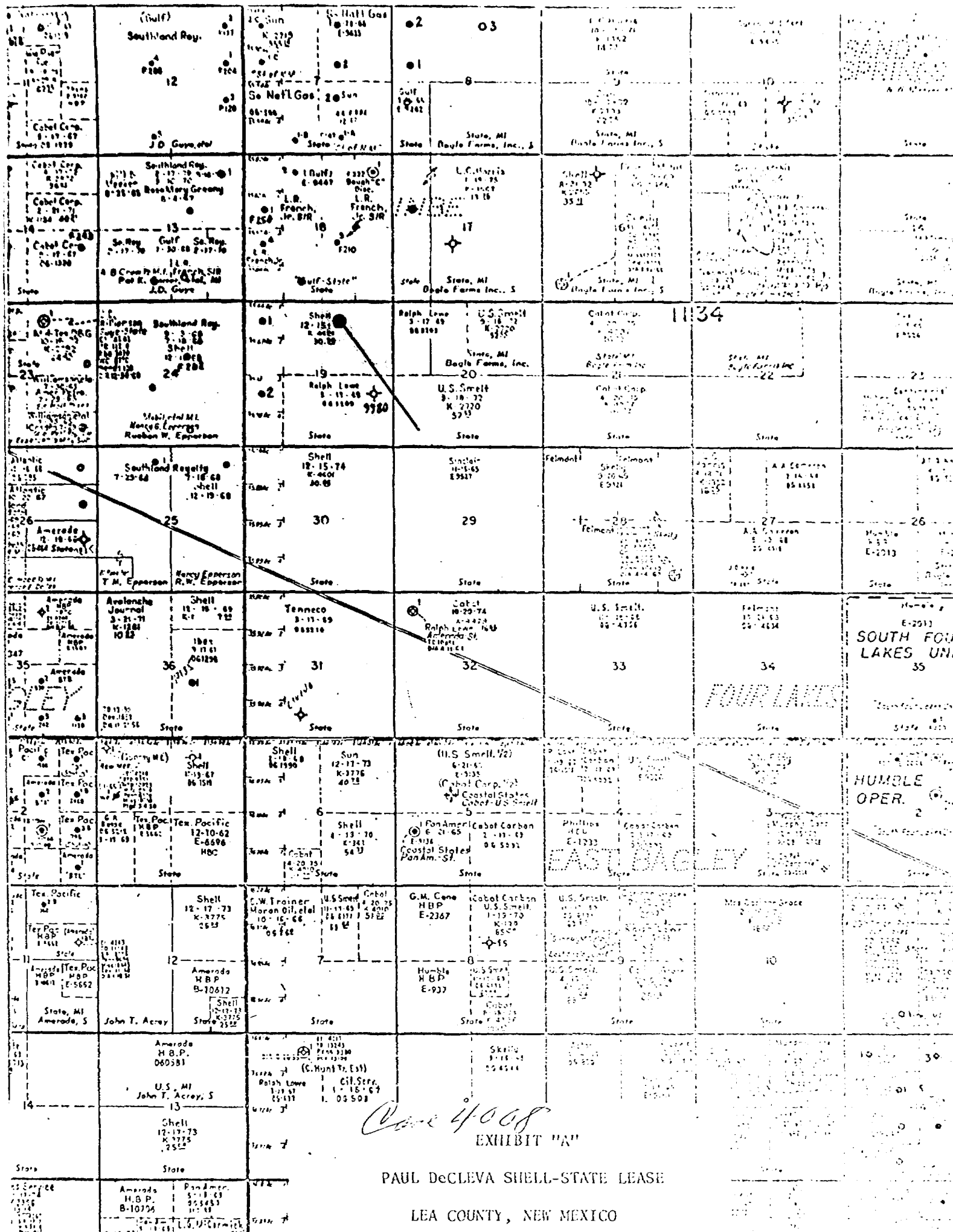
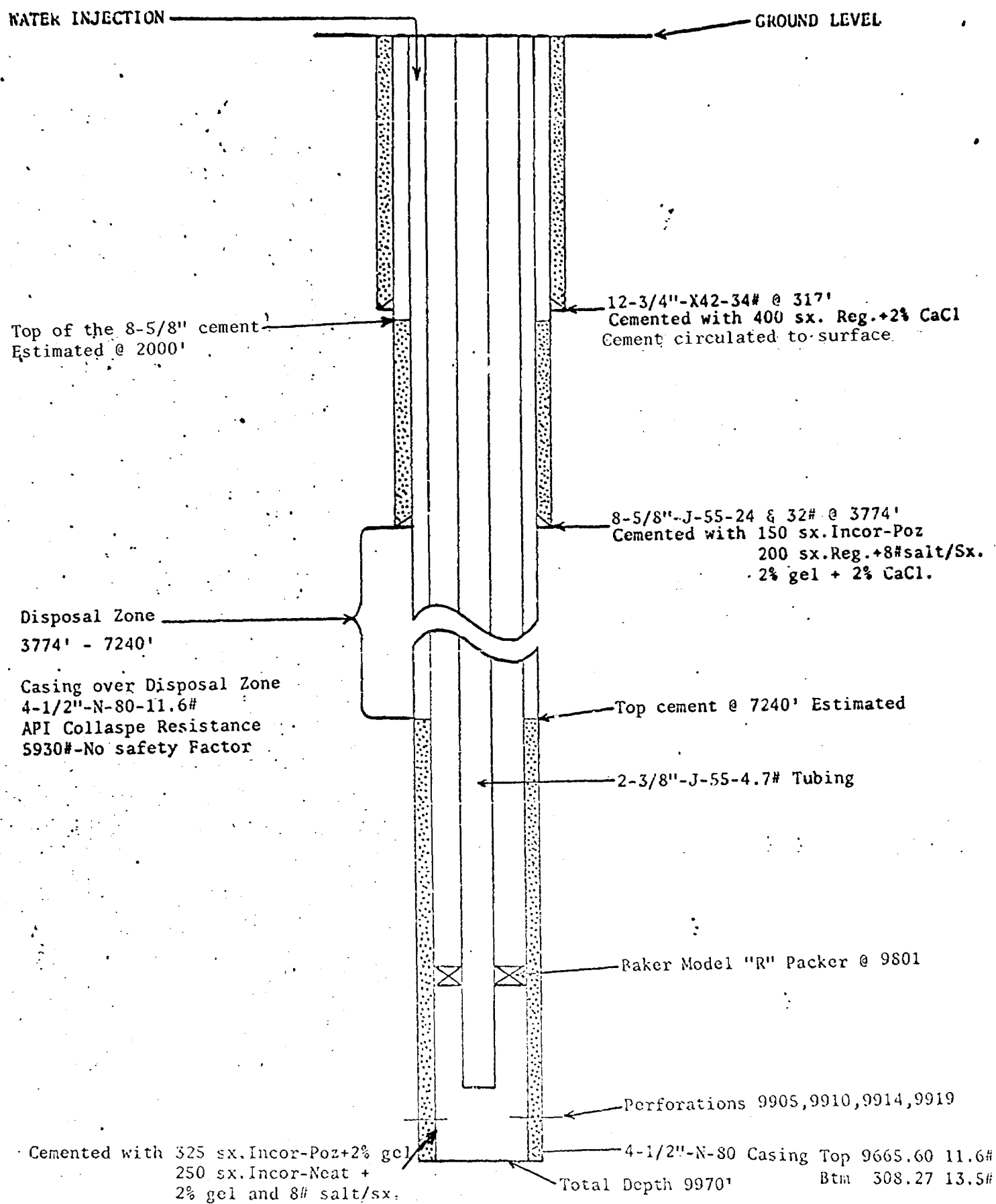




EXHIBIT "C"  
 DIAGRAMMATIC SKETCH  
 PAUL DeCLEVA NO.1 SHELL STATE



DRAFT

GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE No. 4008

Order No. R-3650

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Pennsylvanian Pool through 2 3/8-inch tubing and to dispose  
of produced salt water down the annulus between the 8 5/8-inch  
intermediate casing string and the 4 1/2-inch production casing  
string into the San Andres, Glorieta, and <sup>Tub</sup> ~~possibly other~~ formations,  
with injection into the open-hole interval from approximately  
3774 feet to 7240 feet.

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(3) That the produced salt water should be continuously treated prior to injection to prevent casing corrosion and coupon corrosion tests should be conducted continuously on said well and the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission.

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↙ between the  
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DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

~~San 111~~ Feb  
D 3772  
489719 52

DOCKET MAILED

~~Date~~

Cootner - Paul Atwood & Malone

Paul De Clewa

NW NE 19-11S-31E Lea

De Clewa Shell State No. 1

deal

annulus betw intermediate & prod  
csg into San Andres  
Florita

approx 4100 to 7400  
3774 to 7240  
Sube Penn.